

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Tonya McBride et al.

Art Unit: 1711

Serial No.: 10/071,040

Examiner: Jeffrey C. Mullis

Filed

: February 8, 2002

Title

: POLYMER COMPOSITIONS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

DECLARATION OF RAMAN PATEL UNDER 37 C.F.R. § 1.131

- I am a co-inventor of the above-captioned application and am employed by the 1. owner of the application.
- Attached as Exhibit A is an experimental work sheet that I originally prepared for 2. a research assistant to provide him with formulations that I wanted him to compound. The "start on" date and "Client App." information are whited out on Exhibit A; the "start on" date was well prior to June 7, 2001. The upper table in Exhibit A provided the formulations. The formulations generally correspond to those in Table 3 of the above-captioned patent application; for example, formulation 89940B corresponds to "Comp. 4" in Table 3, formulation 89940C corresponds to "Comp. 5" in Table 3, and formulation 89940D corresponds to "Comp. 6" in Table 3.
- 3. The formulations provided in Exhibit A were prepared and evaluated well prior to June 7, 2001. The formulations were prepared by melt blending the previously dynamically vulcanized cross-linkable EPDM rubber in a polyolefin (the Uniprene 7100 prepared at Teknor Apex) with styrenic block copolymers (the Kraton G series). Exhibit B provides documentation that the formulations were prepared and evaluated well prior to June 7, 2001. Exhibit B is an email, with attached test results for "Length after 300 Cycles" and 'Force to extend 4 times (gms)", for the ten formulations in Exhibit A. The formulations had been prepared at Teknor

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 23313-1450.

Date of Dennsit

Signature

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Typed or Printed Name of Person Signing Certificate

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Apex and provided to the "Client App." for testing. The testing was performed at the "Client App."; Teknor Apex did not have the equipment to perform these tests. The specific dates and information related to the "Client App.", as in Exhibit A, have been whited out in Exhibit B. The results from the testing, and other testing performed at Teknor Apex, were provided to me and were filled in by me in the tables in Exhibit A well prior to June 7, 2001.

- 4. The date "11/8/2005" in Exhibit A is the date that I recently accessed the work evaluation sheet in the records at Teknor Apex; I had accessed the work evaluation sheet to assist me in preparing this declaration.
- 5. I have noticed an error in Table 3 of my patent application. The units for "Force to extend x 4" should be "grams", not parts. I believe a person of ordinary skill in the art would recognize the error.
- 6. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that those statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Raman Patel

NOV- 22, 2005

Attorney's Docket No.: 01464-067001 / TPV/SEBC

Date

21208384.doc

88

665

8.8

88 8'8 1375

8,8 8,8 1410

8.8 1150

8 8 8

8 8

8.8 888

8.8.8 8.8 980

8.8 8.8 1250

435 8.8

Force to extend X4, gm

9,25,9

Length after 300 cycles Oria, Lenath=8", 0D=0.2"

Immediate, In Affer 30 min. In

765

100

25

20

20

20

2.60 2.13

KRATON G-1650

032-650

KRATON G-1652

032-165

PEBAX

032-652 KRATON G-1651

102-042

102-041

02-040

2.27

25

100

100

100

100

100

<u>6</u>

90

100

1.60 1.60 1.60

UNIPRENE 7100 - 400 NAT UNIPRENE 7100 - 50D NAT

UNIPRENE 7100 - 87 NAT

100

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3% shrinkage + 0.117/lb L+O+P at 4000 lb/hr output rate 1100000 MatiType: TPV

Charge #:

Chemist: Raman Patel

Date:

Reference formula: LSNH

89950A

89950B

89940E

108-012 LSZH

899400

108-011 LSZH 108-002 LSZH

89940C

89940B

89940A

89987A

Stx Digit Code Assigned for formula

Client/App:

91/\$

UNIPRENE 7100 - 73 NAT

102-034

042-108 Fortelene 9000

Raw Material

3533

9

89950C

120,00 120.00

100.001

100,00

100.00

TOTAL

120.03

125.00 125.00 125.00 100.00

89940D 89940C 89940B

89940A

89987A

PROPERTIES

89940E

89950C

89950B

89950A

0.96

96.0 41/33 2140 620 40/32 650 0.97 96.0 42/33 47/38 1950 0.97

51/42 2130

0,95

960 48/40 2760 670

> 42/32 1740 590

2740

640

5.8

10.8

5.1

6.8

960

630 1.5 11.0 580 48.0 480 0.97 35/28 1390 Flongation @ Break (MOLDs), % Melt Index , g/10 min (190 °C,/10kg) Hardness, Shore Dylnst/10 Sec.) Tensile Strength (MOLDs), Psi Factory Cost, \$/LB. Specific Gravity

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To: "rpatel@teknorapex.com" <rpatel@teknorapex.com>

```
> Dear Mr. Parel,
> Please find the enclosed results on the tests that I perform to compare
> your materials with PBBAX. The compounds 89940C, 69970D and 60000E seem the
> most challenging. Let me know your suggestions and comments. Can you
> improve them to get near PBBAX?
> I would like to have the samples of these compounds, so that I can
> actually jacket them on one of our cables.
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Comparison with PEBAX

Original Length: 8"

OD: 0.200*

Material	Length after 300 Cycles		Force to extend
	immediate (inch)	after 30 mins	
89940A	8, 8	8, 8	1250
89940B	8, 8,5	8,.8:	980
89940C	8,8	8; 8	820
89940D	8, 8	8,8	765
89940E	8, 8	8, 8	.860
89950A	8, 8	8, 8	1150
899508	8, 8	8, 8	1410
89950C	8,8	8,8	1375
89987A	9.25, 9	8,8	435
PEBAX	8, 8	5, 8	685

G 3€2

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